

Claims

- [1] A sheet paper for irregular reflection, comprising: from the top thereof, a coating layer 50 on which a hemispherical embossing 51 is repeatedly formed at one side of the sheet paper, a colored transparent paint film layer 40 formed at the rear surface of the coating layer 50 having the embossing 51 formed thereon, a glass bead layer formed below the colored transparent paint film layer 40 and having glass beads 20 dispersed therein, a colorless transparent paint film layer 30 formed below the glass bead layer, and a silver paint film layer 10 formed below the colorless transparent paint film layer 30, wherein the glass beads 20 are uniformly embedded and fixed in the colored transparent paint film layer 40 and the colorless transparent paint film layer 30 in such a manner that the surface of each bead is embedded in both layers 30, 40 by a half of the bead diameter respectively.
- [2] The sheet paper according to claim 1, wherein the glass bead 20 dispersed in the glass bead layer is formed of a shaft-type bead and a round-type bead mixed at the ratio of 50:50.
- [3] The sheet paper according to claim 1, wherein the glass bead layer is formed of densely dispersed glass beads 20 having a uniform size.
- [4] The sheet paper according to claim 1, wherein the coating layer 50 is formed of a polyurethane elastomer material, and a paint and transparent resin used for the colored transparent paint film layer 40, the colorless transparent paint film layer 30, and the silver paint film layer 10 is a polyurethane resin based material.
- [5] A method of fabricating a sheet paper for irregular reflection, the method comprising the steps of:
forming an embossing having a shape of hemisphere in one side of a coating layer 50 by using a roller 60 with a projection 61 provided thereon (S1);
coating a colored transparent paint film on the bottom surface of the coating layer 50 having the embossing 51 formed thereon to form a colored transparent paint film layer 40 (S2);
dispersing a glass bead 20 on the bottom surface of the above-formed colored transparent paint film layer 40 through a screen 80 to form a glass bead layer (S3);
coating a colorless transparent paint on the bottom surface of the above-formed glass bead layer to form a colorless transparent paint film layer 30 (S4); and

forming a silver paint film layer 10 on the bottom surface the above-formed colorless transparent paint film layer 30 (S5).

- [6] A method of fabricating a sheet paper for irregular reflection, in which the method according to claim 5 is in reverse carried out by using a common release agent, wherein a silver paint film layer 10 is formed on the top of the release agent, a colorless transparent paint film layer 30 is formed on the top of the silver paint film layer 10, a glass bead is dispersed on the top of the colorless transparent paint film layer 30 to form a glass bead layer, a colored transparent paint film layer 40 is formed on the top of the glass bead layer, and a coating layer 50 is formed on the top of the colored transparent paint film layer 40.
- [7] The method according to claim 5 or 6, wherein one half surface of the diameter of the glass bead 20 in the glass bead layer is embedded and fixed in the colored transparent paint film layer 40 and the other half thereof is embedded and fixed in the colorless transparent paint film layer 30 formed by a colorless transparent paint.
- [8] The method according to claim 5 or 6, wherein the coating layer 50 is formed of a polyurethane elastomer material, and a paint and transparent resin used for the colored transparent paint film layer 40, the colorless transparent paint film layer 30, and the silver paint film layer 10 is a polyurethane resin based material.